

FIG. 1A

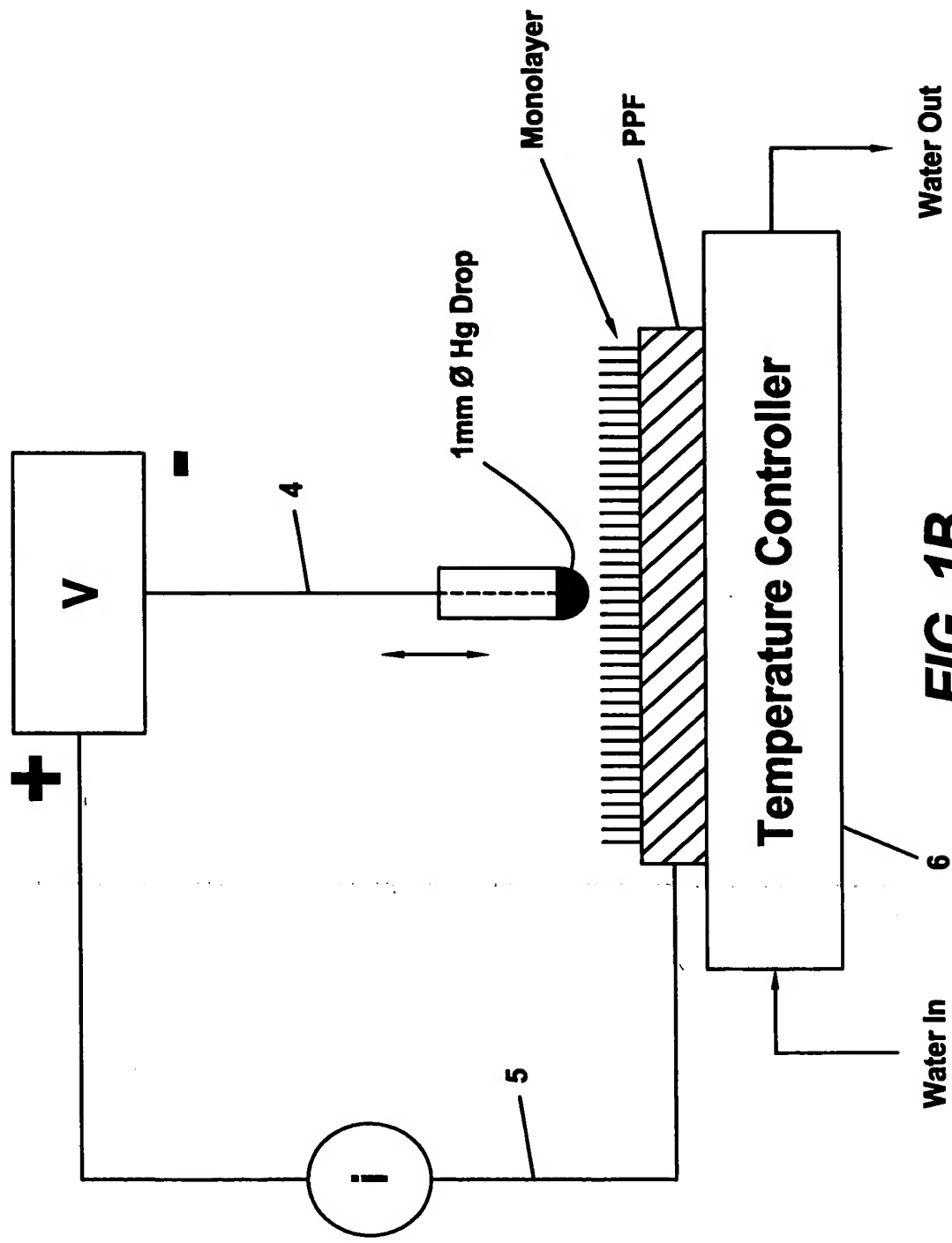


FIG. 1B

3/22

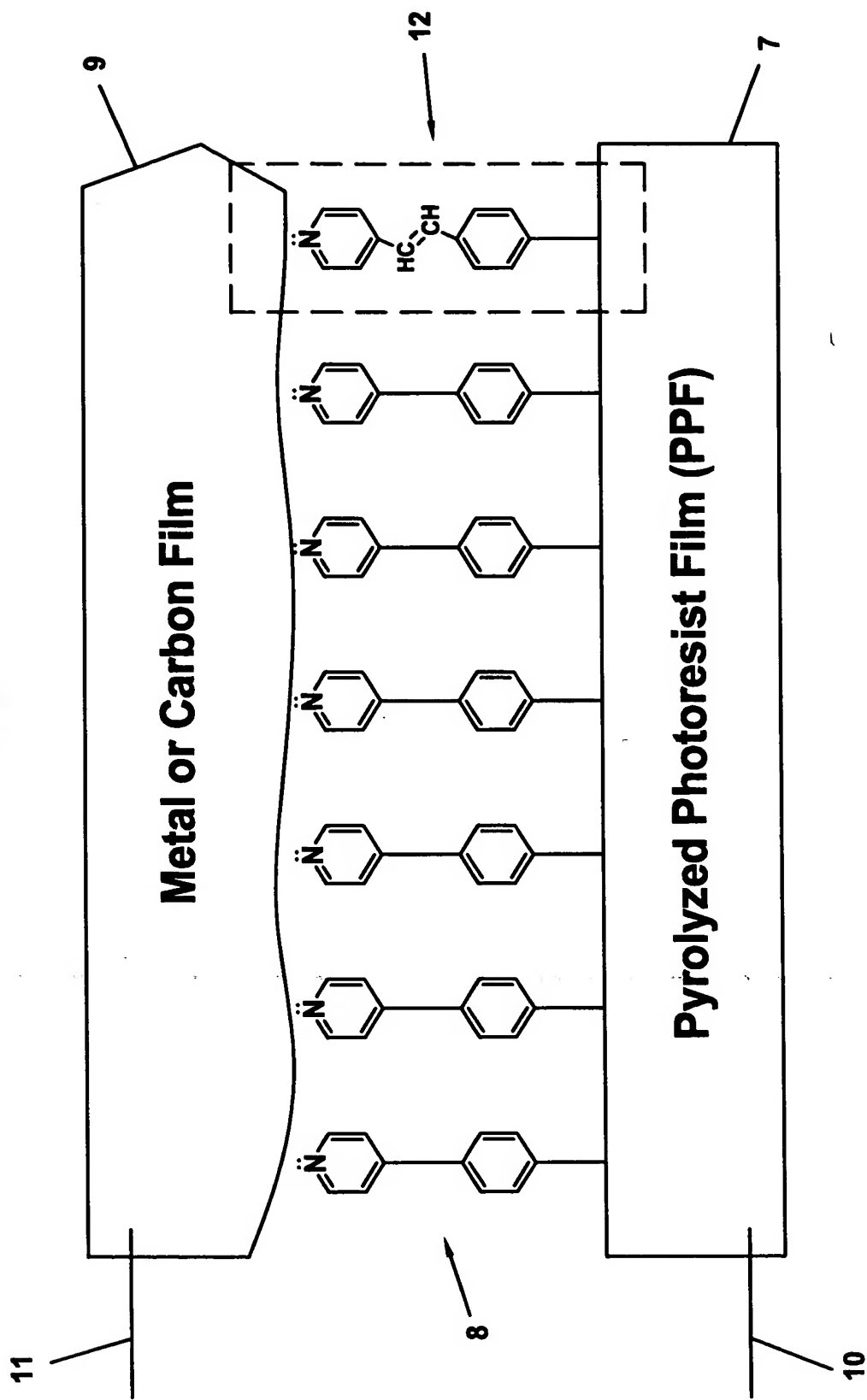


FIG. 2

4/22

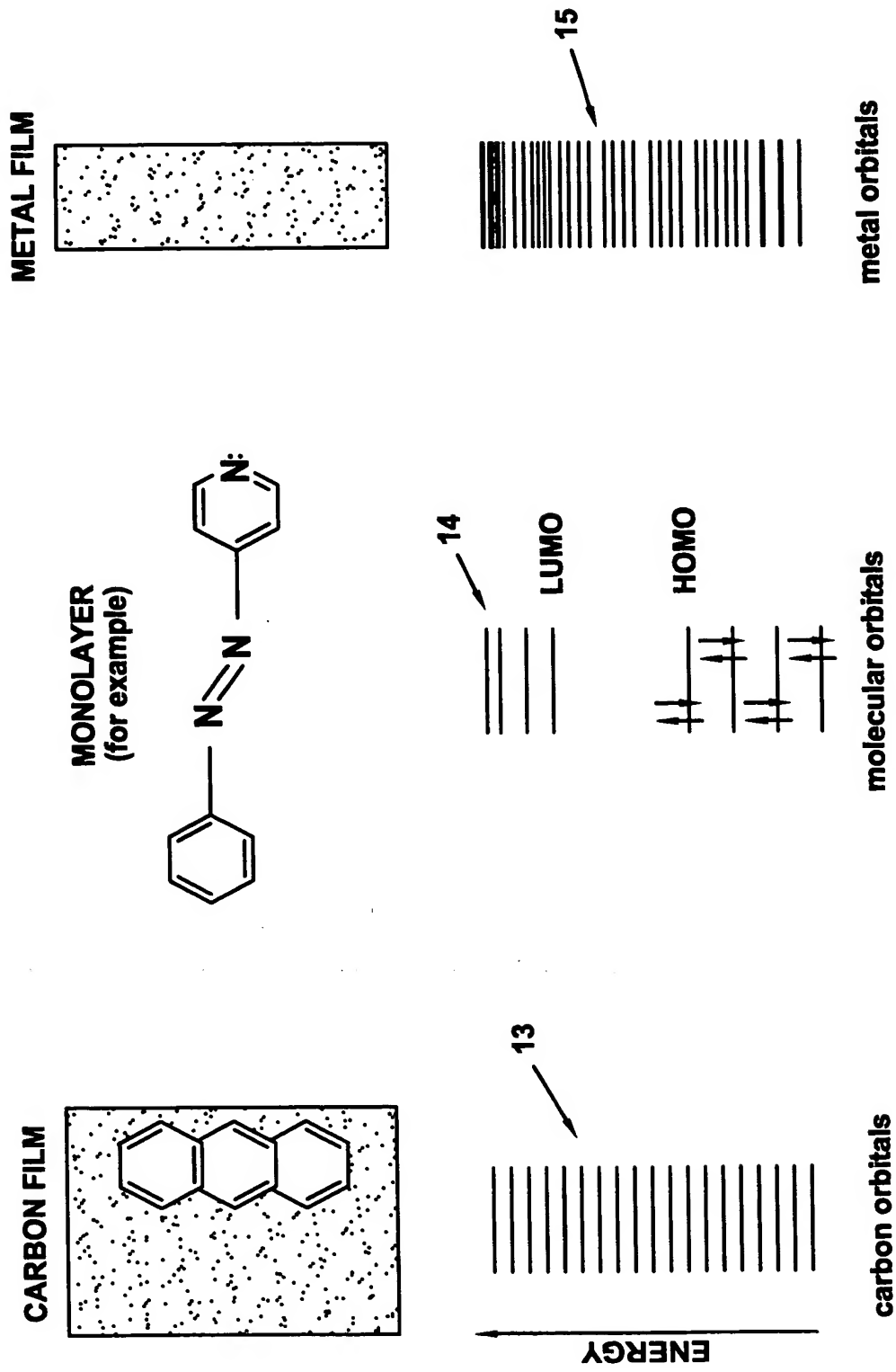
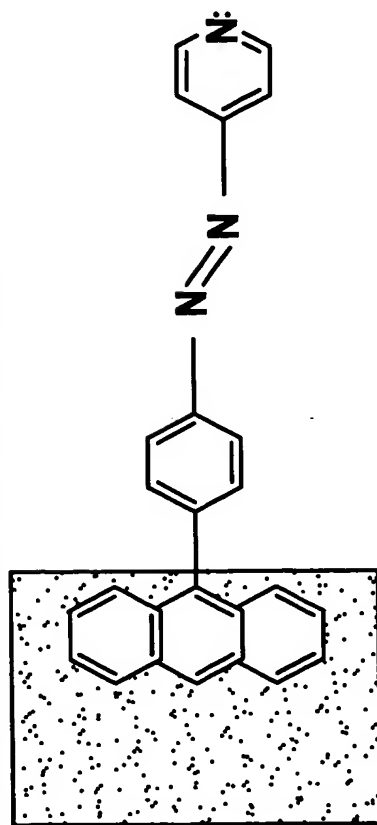


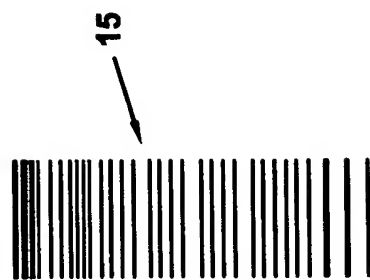
FIG. 3

5/22

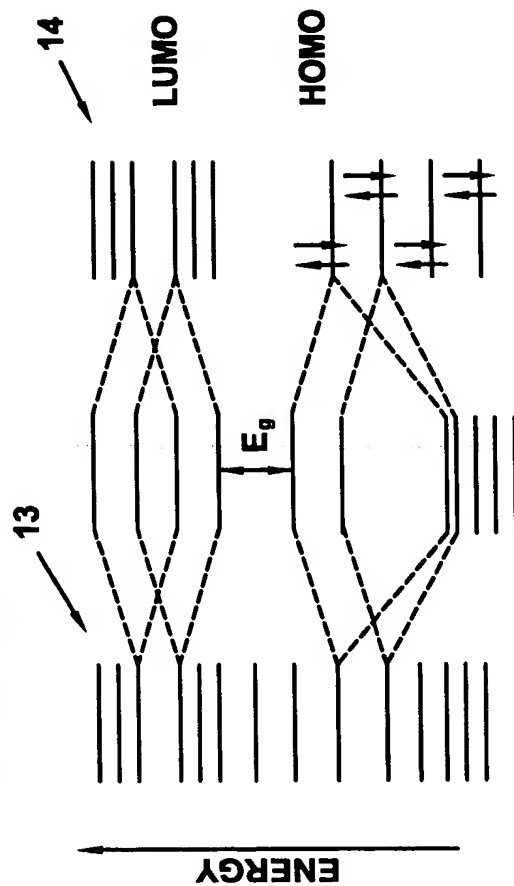
Chemically bonded organic monolayer on PPF



METAL FILM



metal orbitals



carbon orbitals mix with monolayer orbitals

FIG. 4

6/22

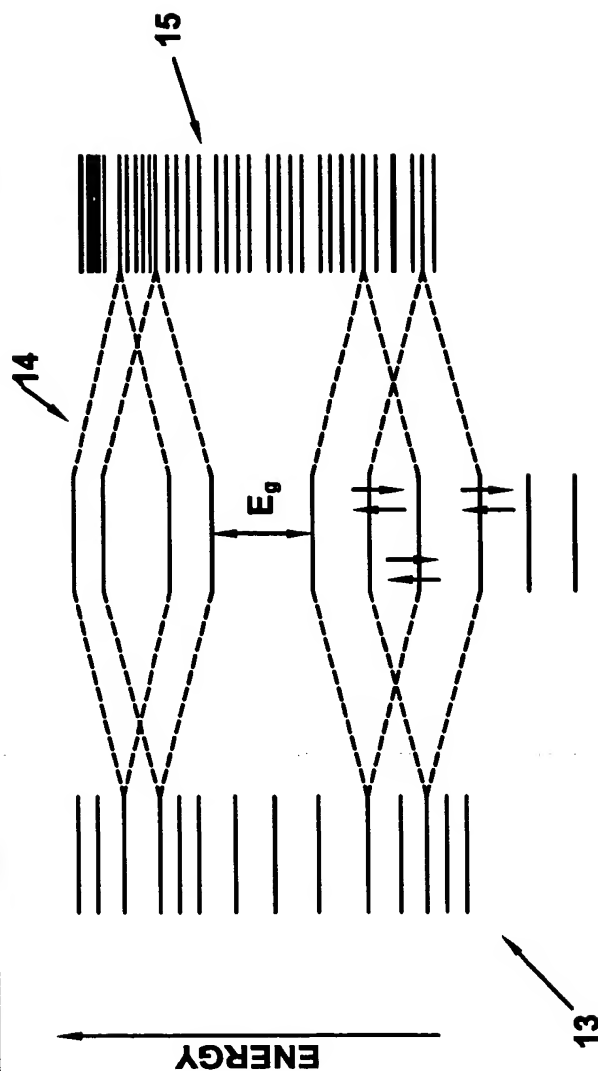
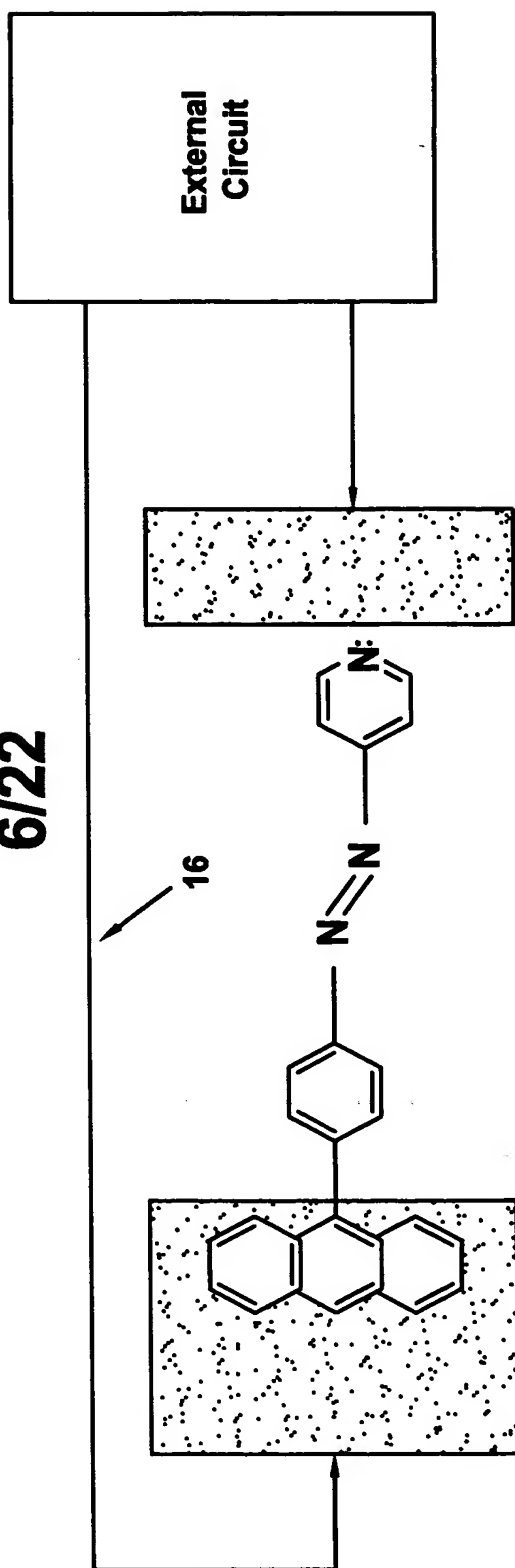


FIG. 5

7/22

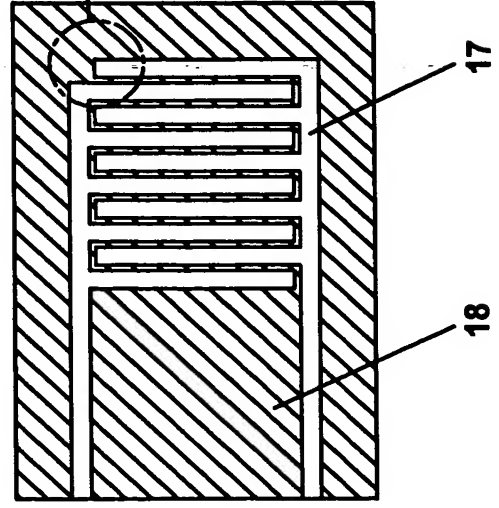
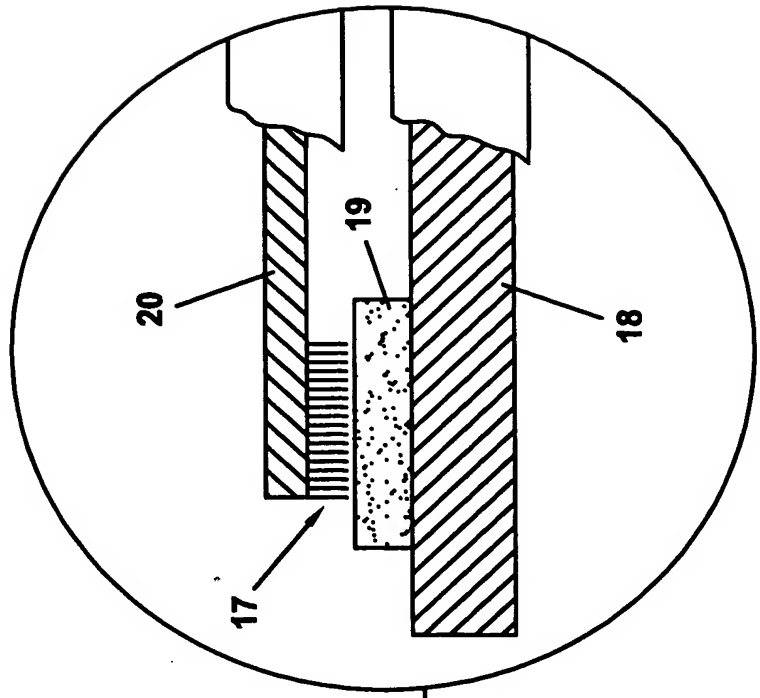


FIG. 6

8/22

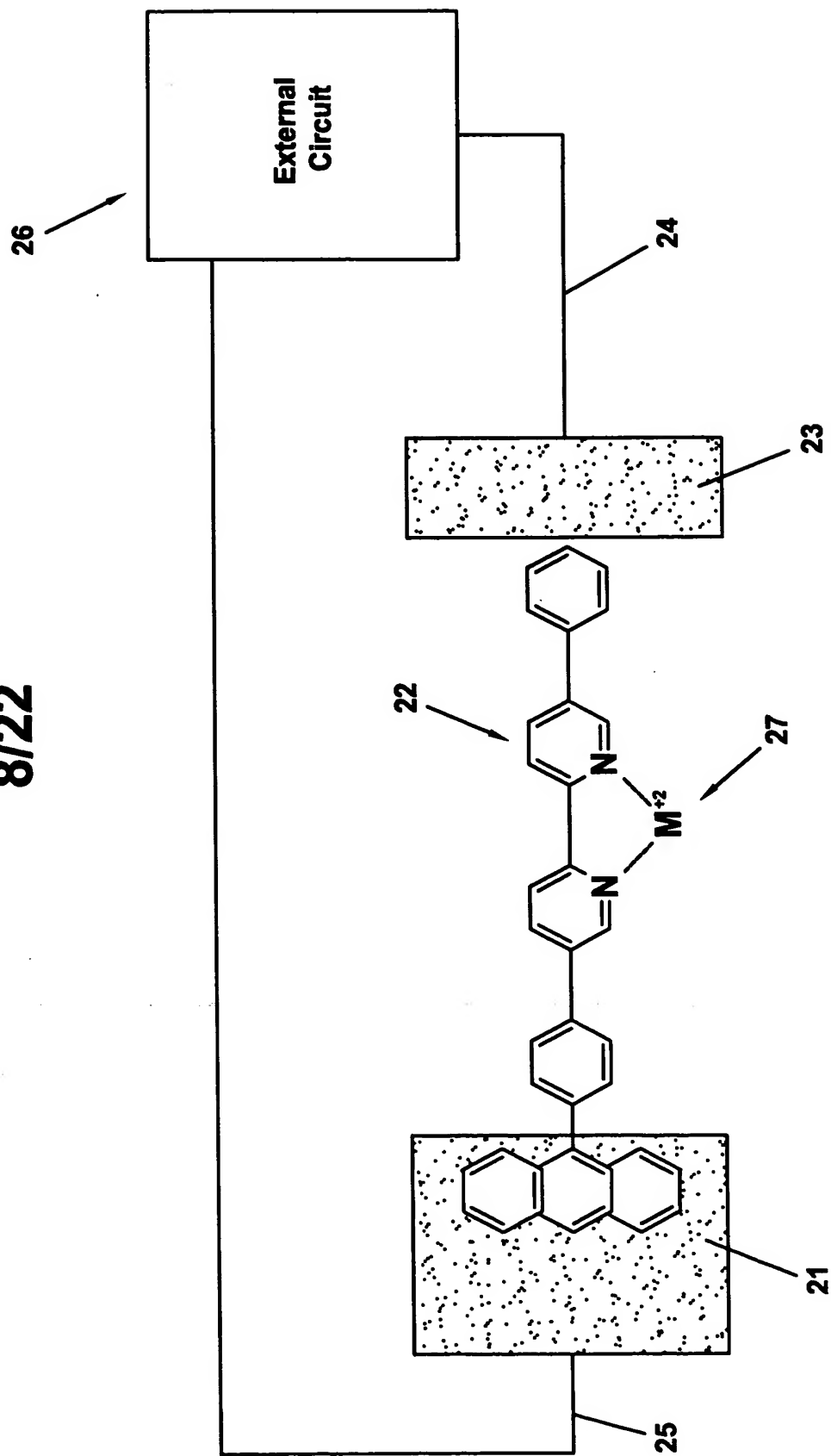


FIG. 7

9/22

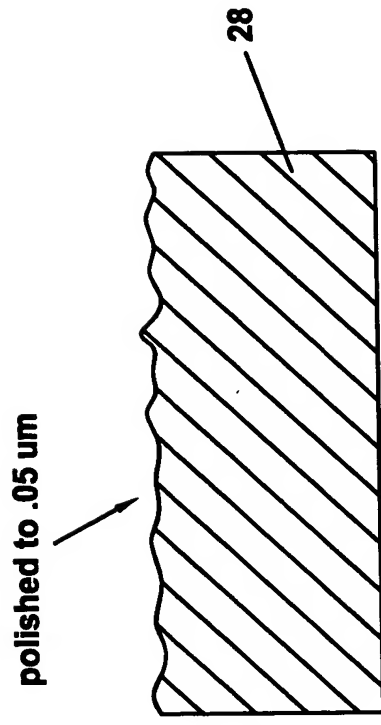
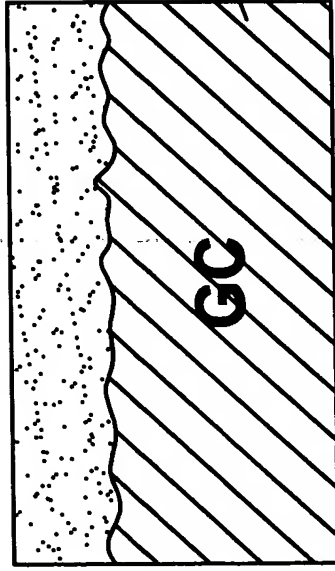


FIG. 8

10/22

29

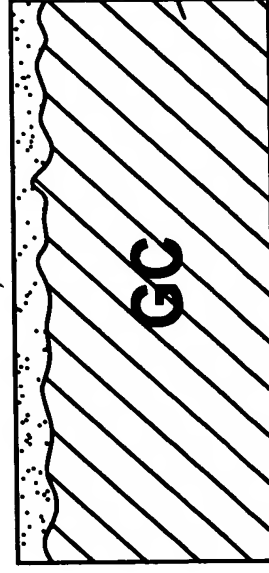


28

GC

1000°, H₂/N₂ atmosphere

30



28

GC

FIG. 9

11/22

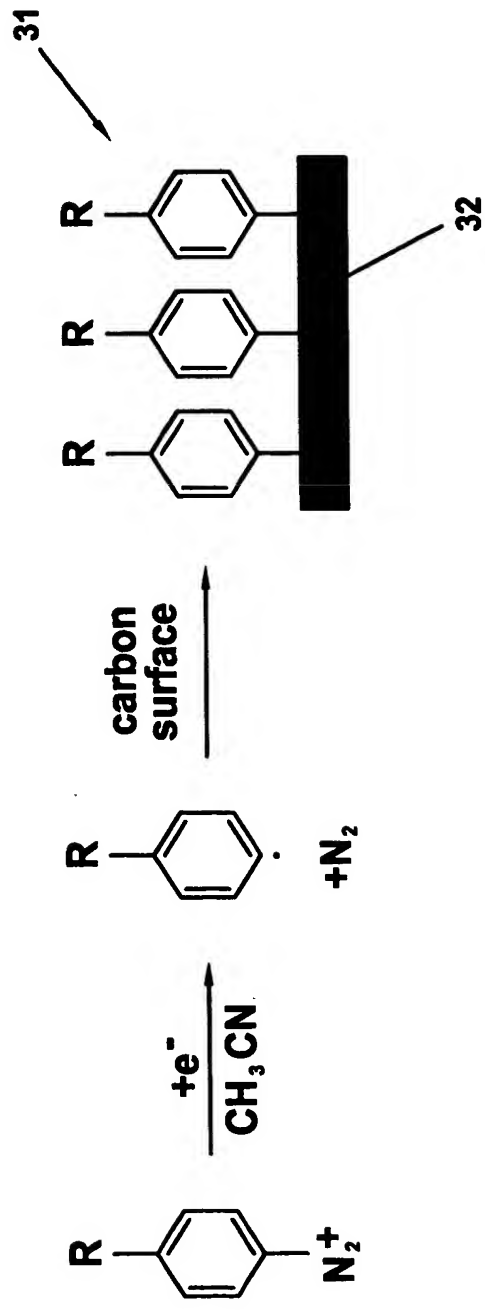


FIG. 10

12/22

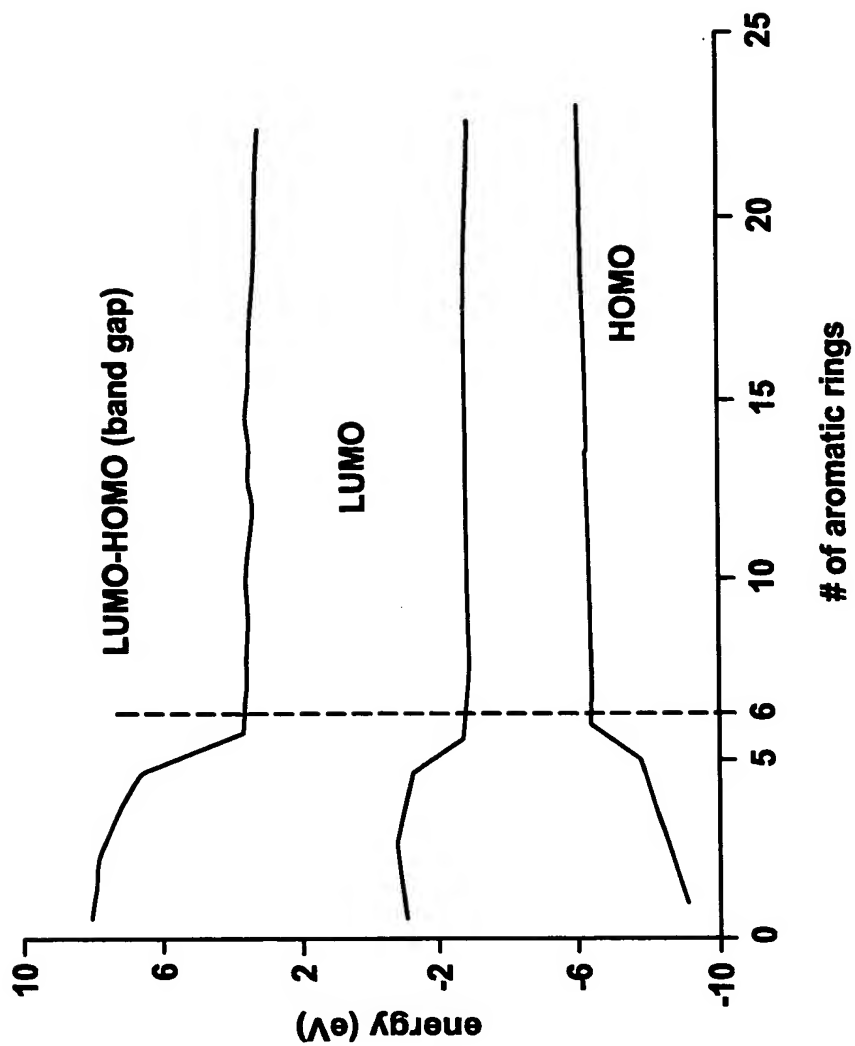
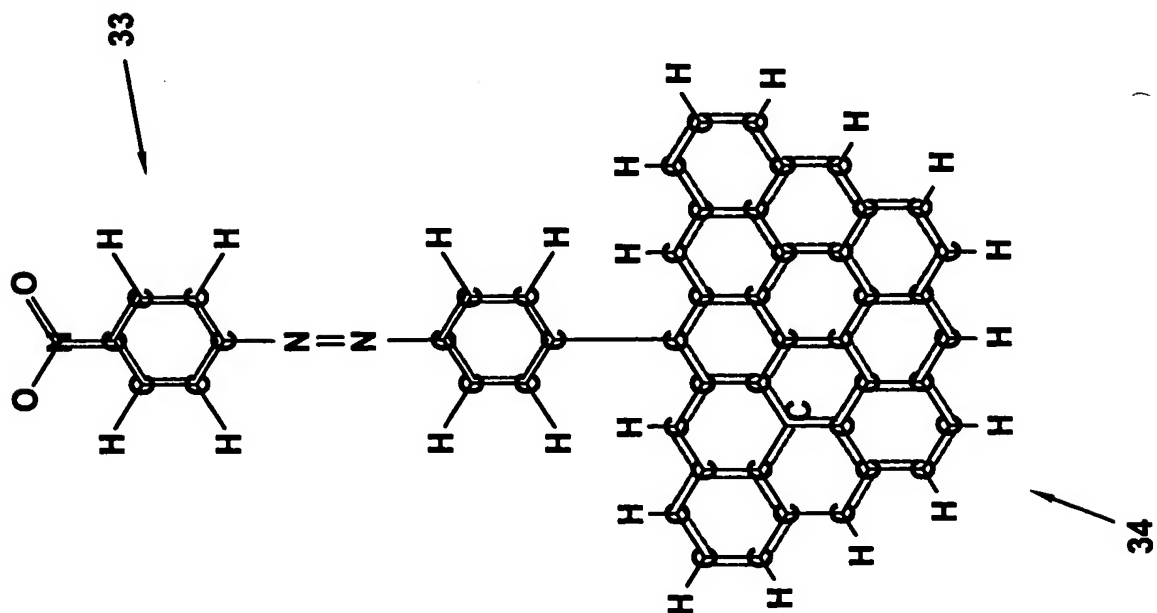


FIG. 11

13/22

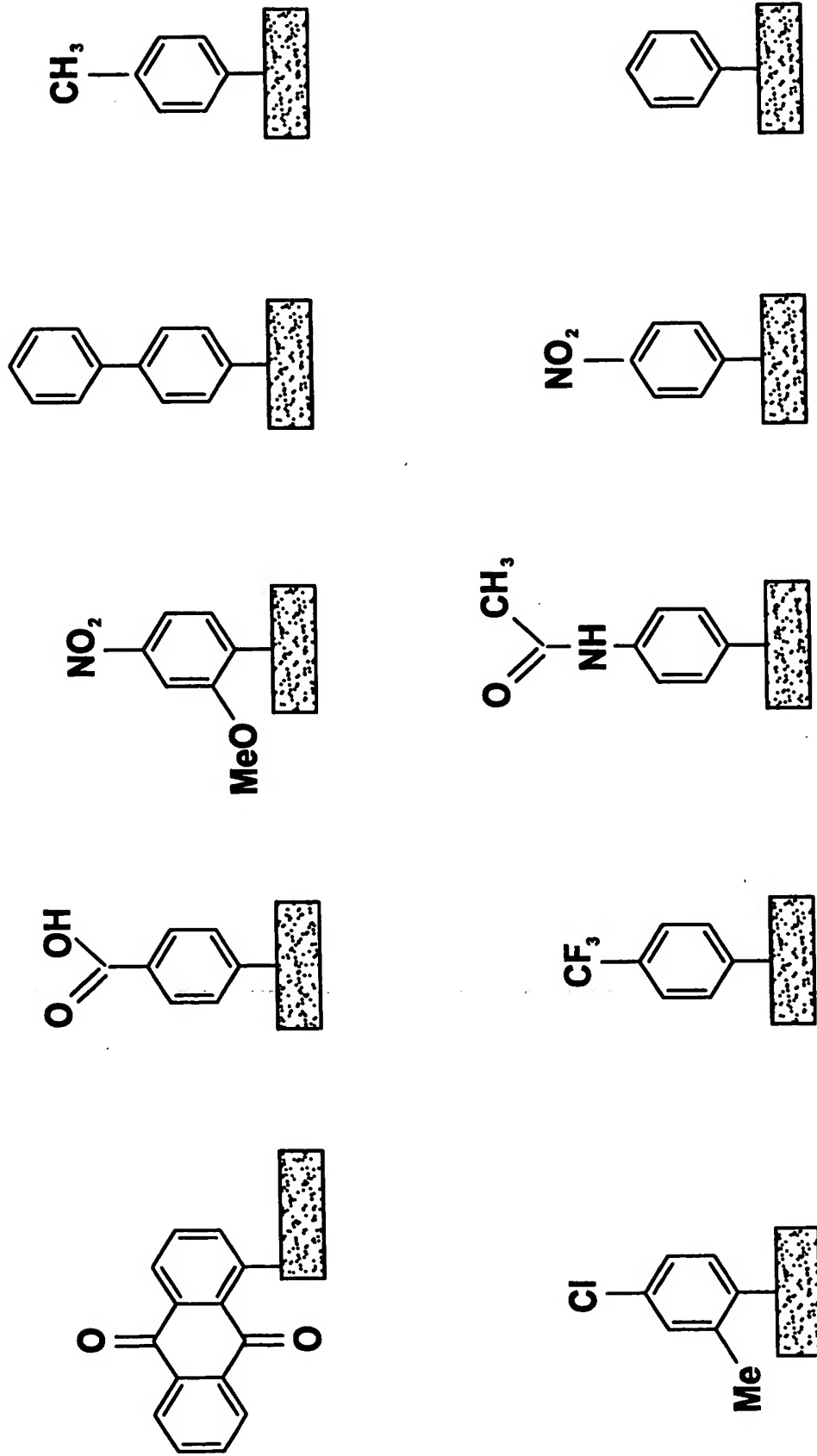


FIG. 12

14/22

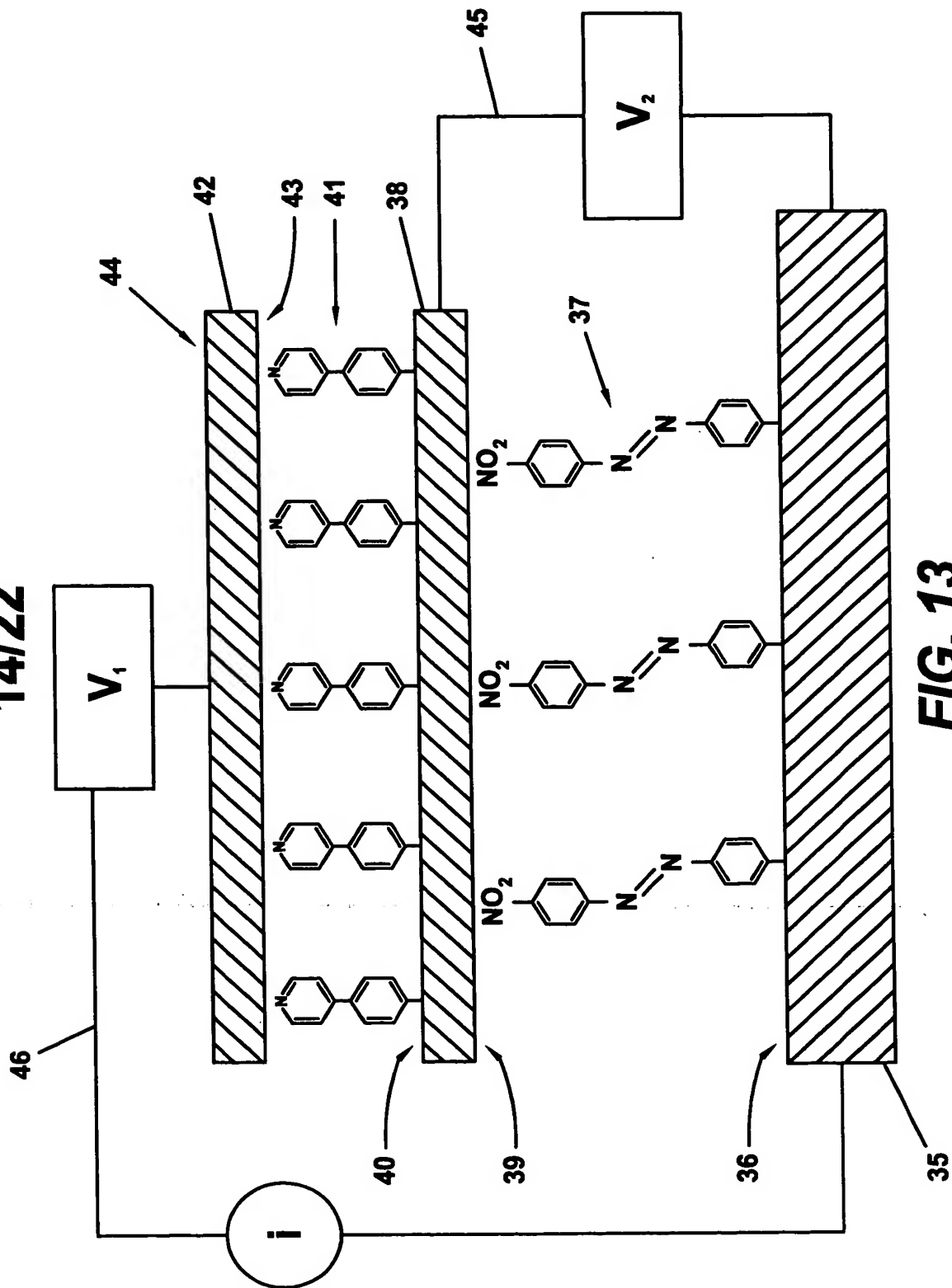
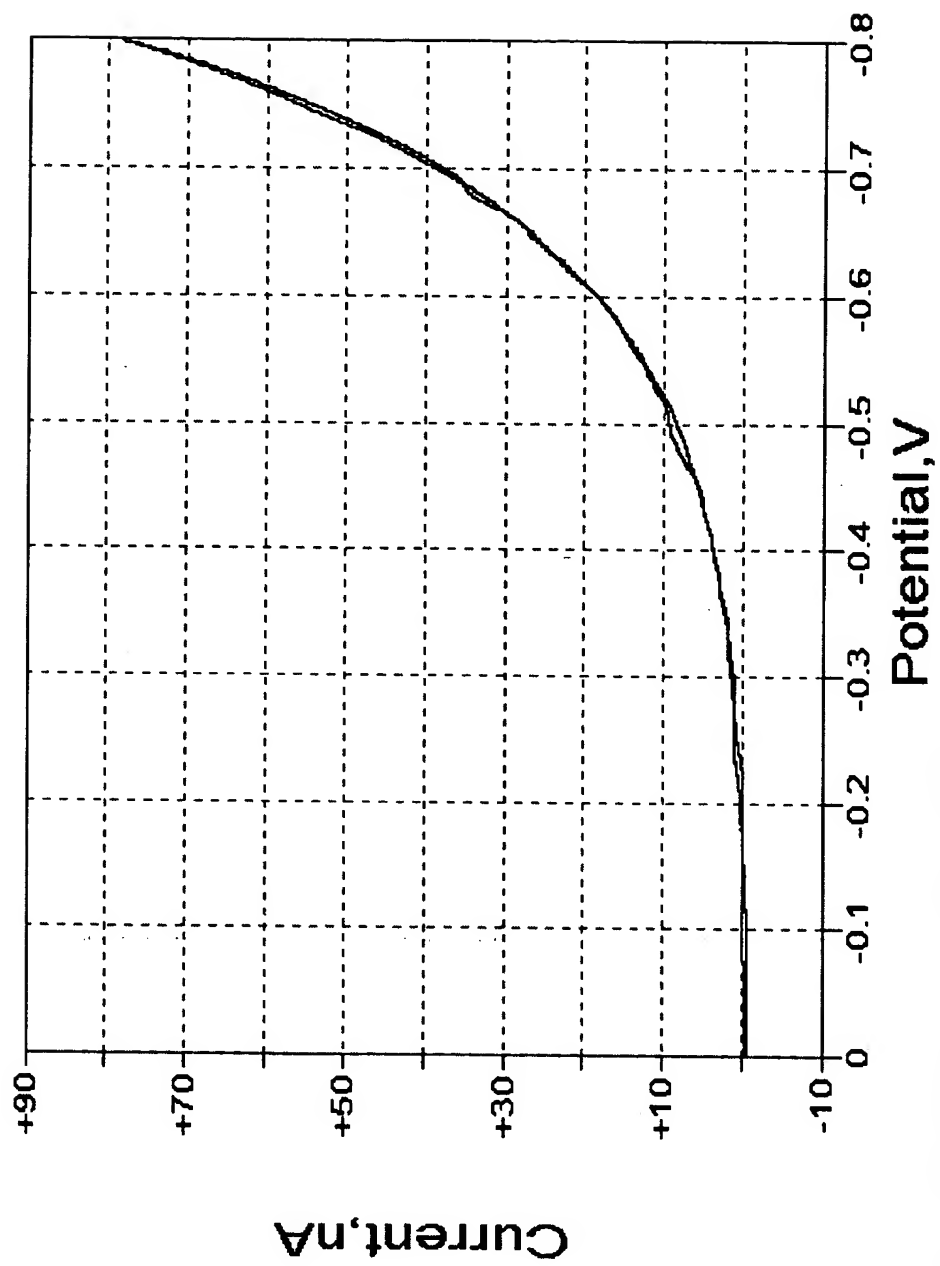


FIG. 13

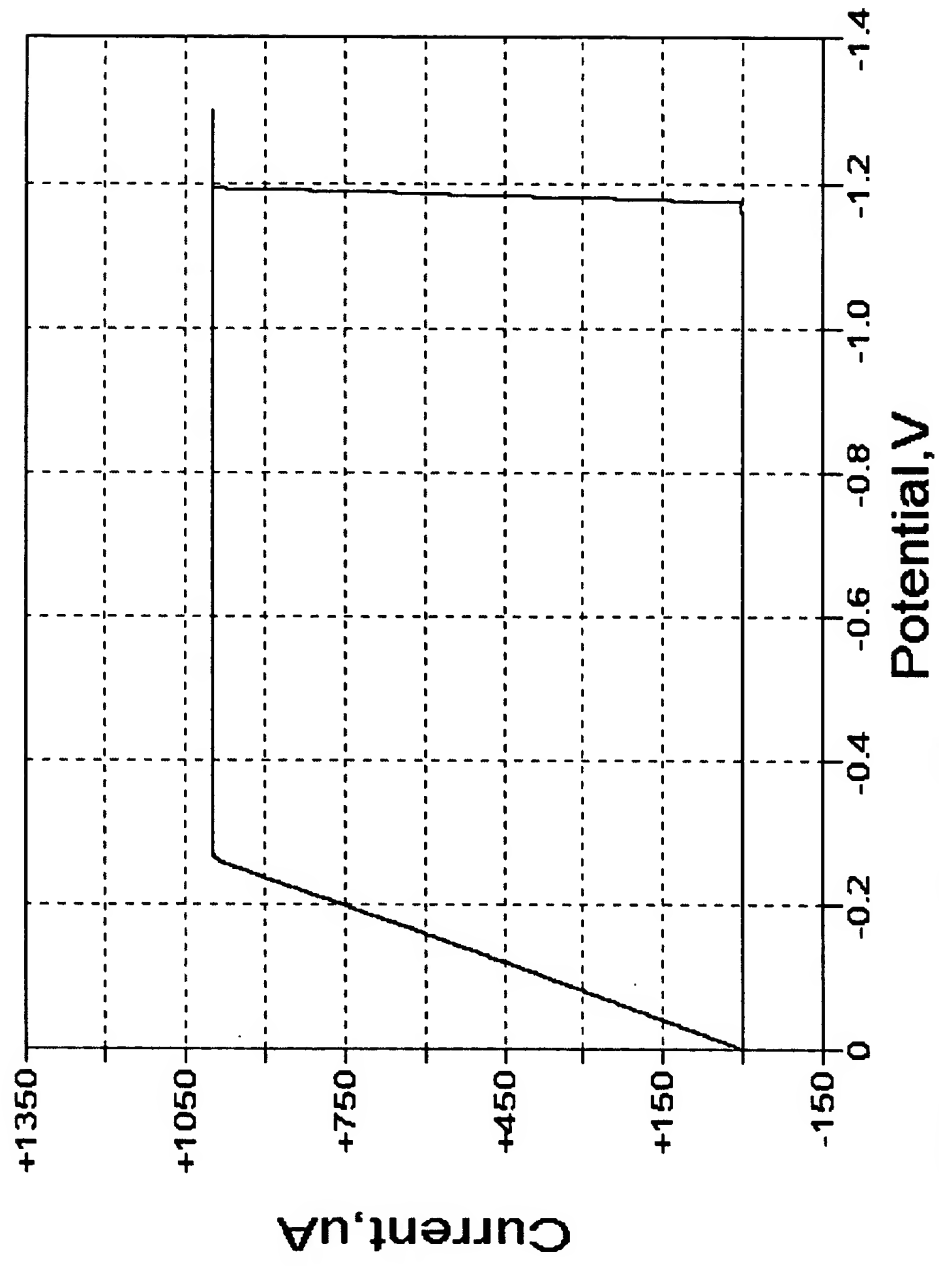
15/22



E = -330.0mV i = +5.455e-008A

FIG.14

16/22



E = -710.6mV i = +1.255e-003A

FIG.15

17/22

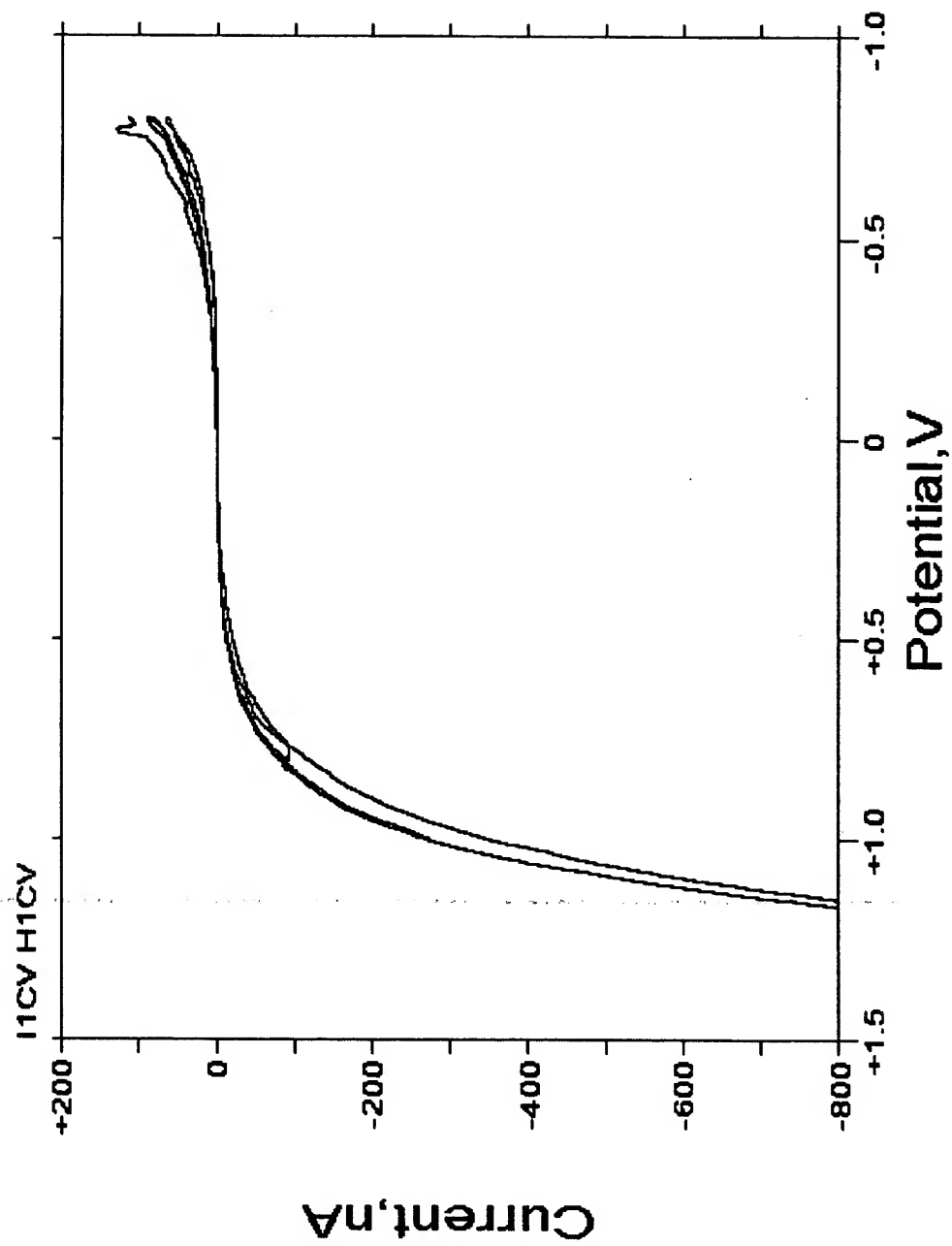


FIG.16

18/22

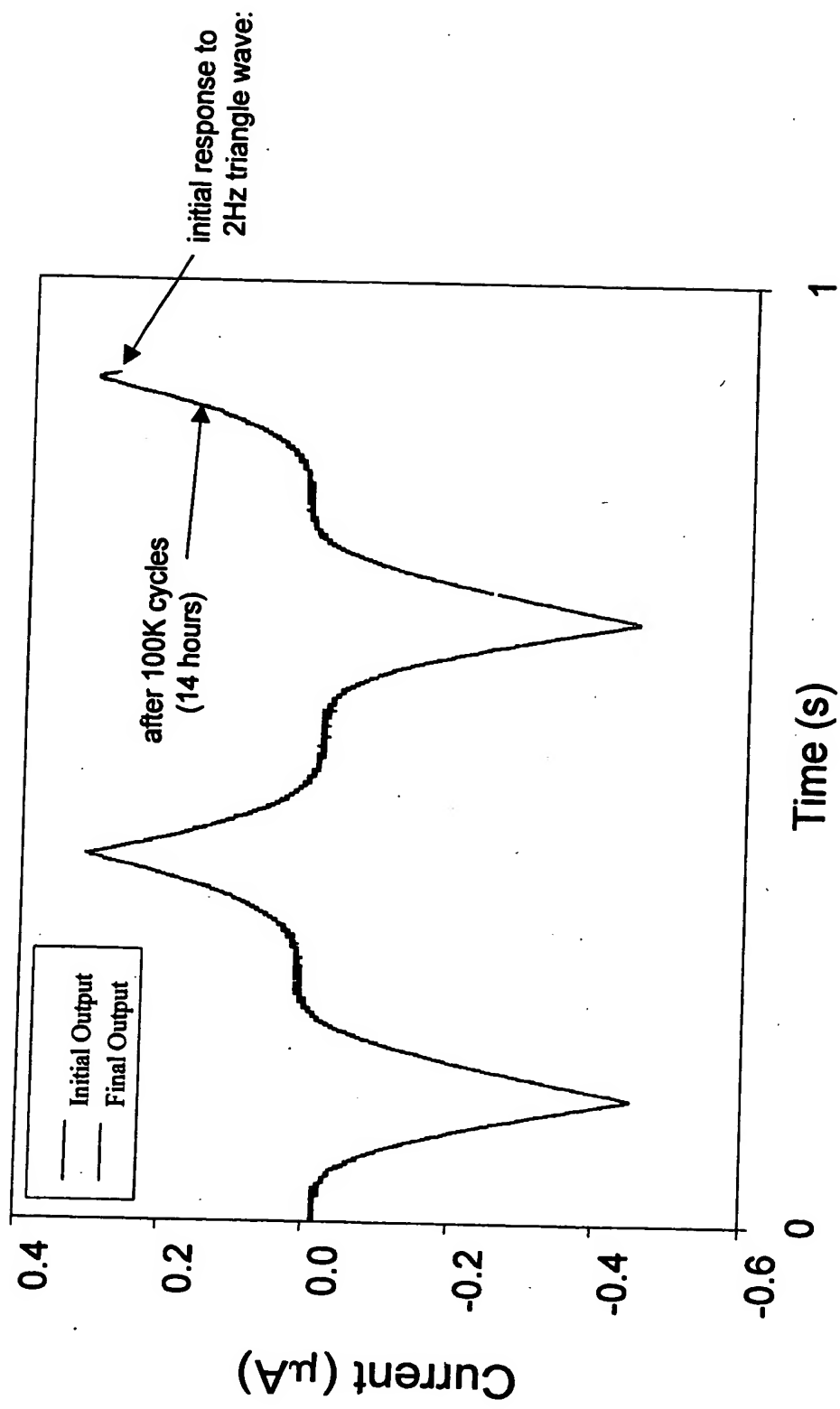


FIG.17

19/22

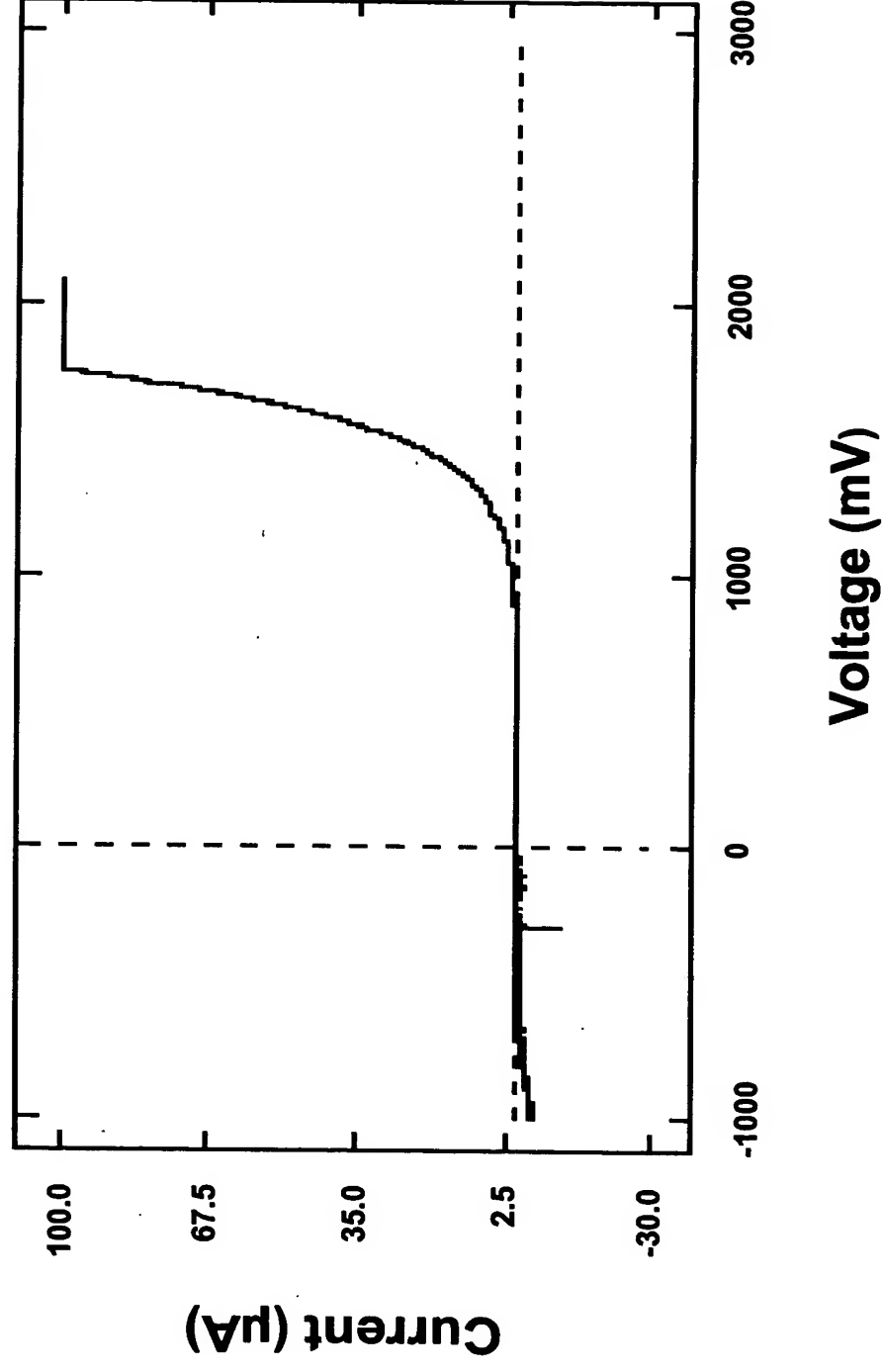


FIG.18

20/22

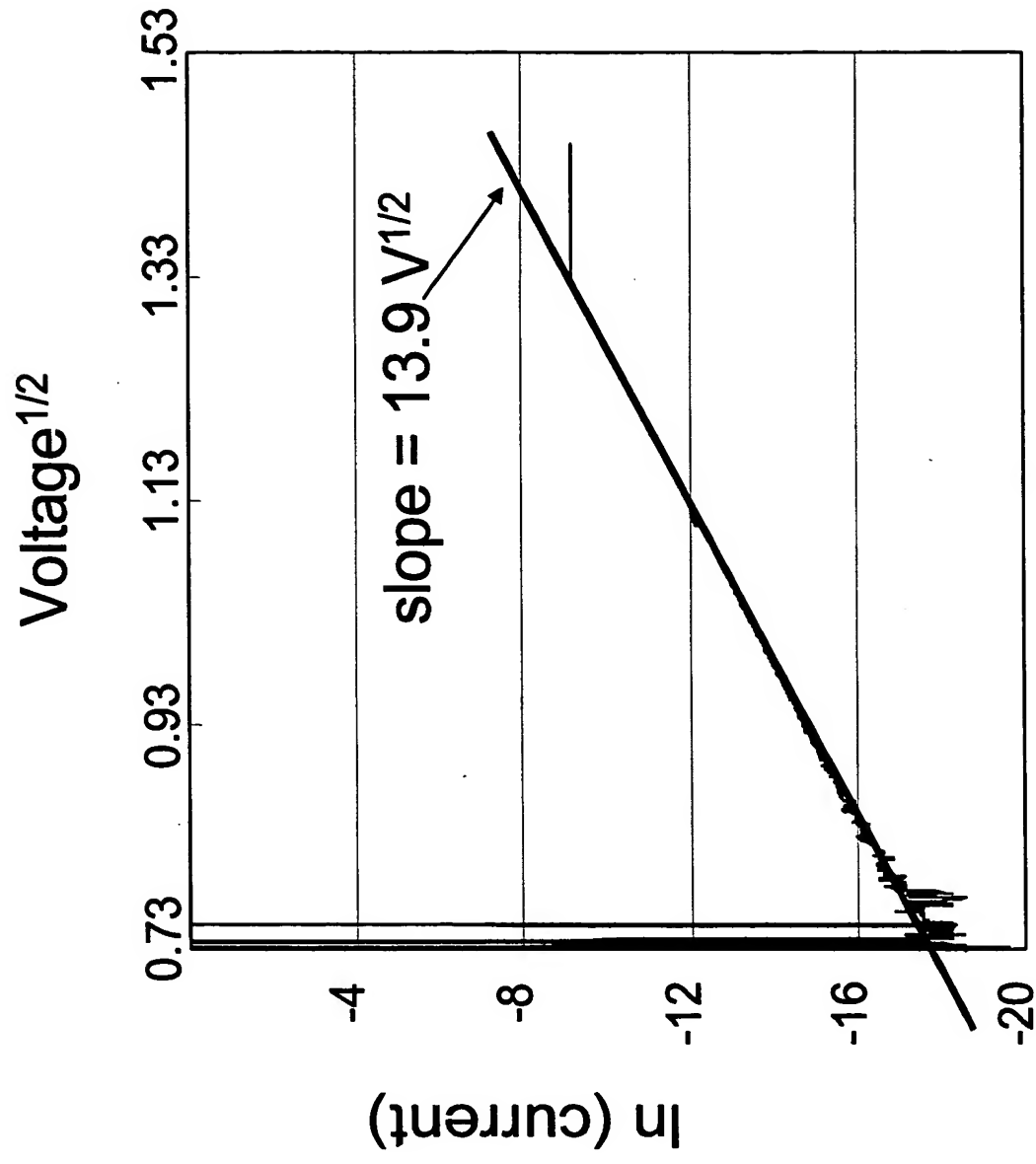


FIG.19

21/22

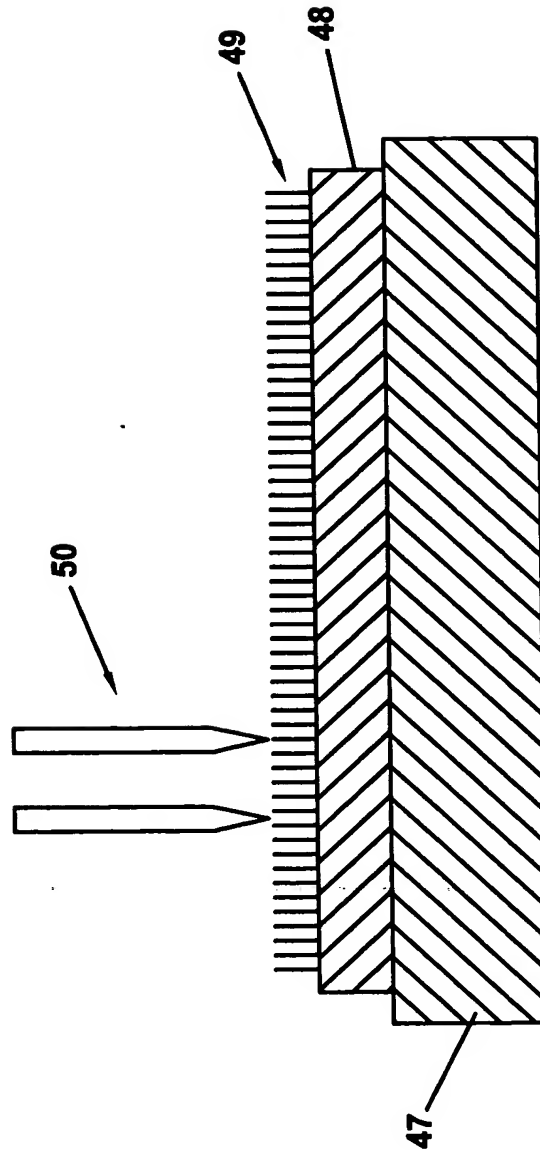


FIG. 20

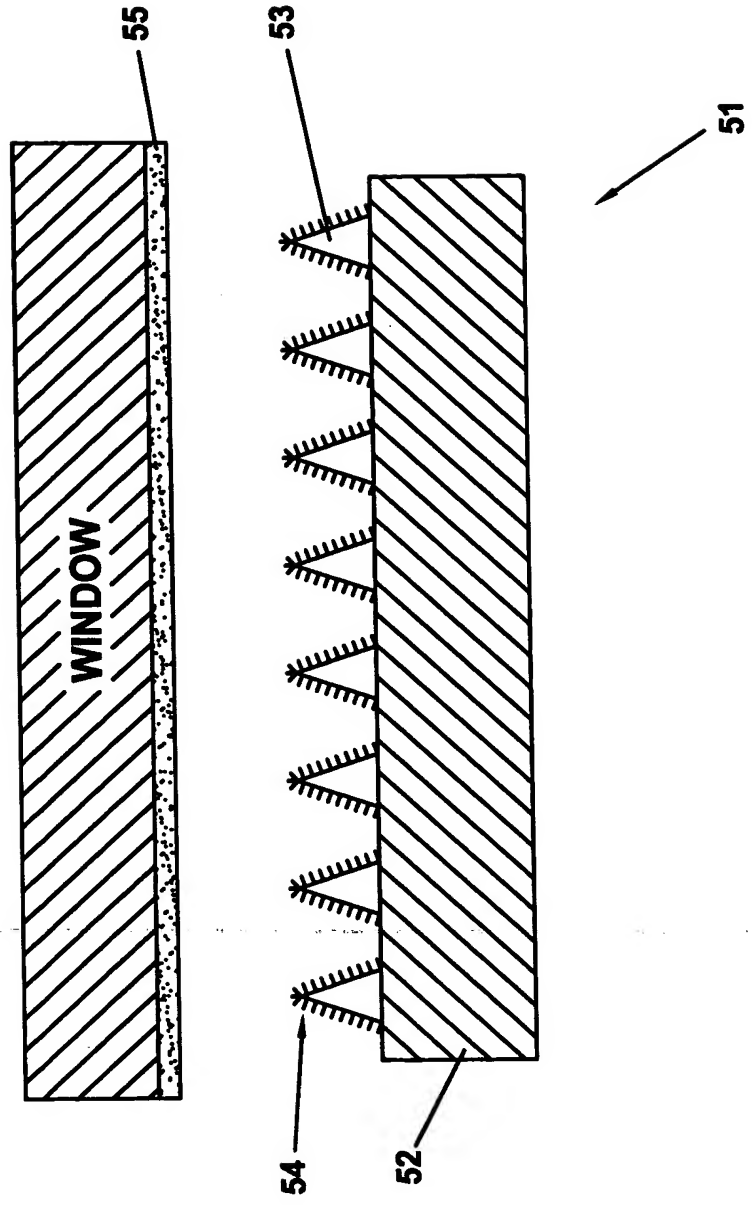


FIG. 21